

VERSION SHOWING THE CHANGES TO THE CLAIMS

This listing replaces all prior listings.

IN THE CLAIMS

Amend the claims as follows:

Claim 1, canceled.

2 (Previously presented). The electronic component as set forth in claim 13 wherein the through plating has a cross-sectional profile which comprises a truncated conical cross section free-standing raised portion relative to the first layer .

3 (Previously presented). The electronic component as set forth in claim 13 wherein the through plating comprises a truncated conical cross section profile free-standing raised portion of electrically conductive material and includes any one or more of the group consisting of polyaniline, PEDOT , carbon black, graphite, electrically conducting silver, a metal and a mixture thereof.

4(Currently amended). The electronic component as set forth in claim 13 ~~wherein the component includes an electrically non-conducting insulating material wherein at least one of the plurality of layers and the non-conducting material is~~ selected from the group consisting of an insulating material including polyhydroxystyrene, polymethylmethacrylate, and/or polystyrene, or a semiconducting material including polyalkylthiophene and polyfluorene and a mixture thereof.

5(Previously presented). The electronic component as set forth in claim 13 wherein the through-plating comprises a raised portion relative to the first layer that has a surface roughness which promotes ohmic contacting.

6(Previously presented). The electronic component as set forth in claim 13 wherein the disruption element manifests a chemical treatment of the first layer .

7(Previously presented). The electronic component as set forth in claim 13 wherein the first layer comprises a lower functional layer wherein the disruption element manifests a physical treatment of at least the lower functional layer .

8(Previously presented). The electronic component as set forth in one of claims 2-5 wherein the first layer comprises a lower functional organic layer .

9(Previously presented). The electronic component as set forth in one of claims 2-5 wherein the first layer comprises an organic functional layer wherein the disruption element manifests a locally restricted change in the surface energy of the organic functional layer, at which substantially no wetting by a subsequently applied organic material of a subsequent functional layer is present .

10 (Currently amended). The electronic component as set forth in claim 13 wherein the disruption element is on the first layer and comprises at least a chemical or other arrangement which provides a material residue or physical element having a given shape on the first layer such that, at which prior to or after application of the plurality of layers, the disruption element being is detectable by the presence of at least one of [[a]] said material residue[[.]] or said the shape of the disruption element, traces or a material on the first layer.

11(Currently amended). The electronic component as set forth in claim 13 wherein the component comprises a plastic substrate which includes one of the following materials: PET, PP, PEN, polypropylene, polyimide, polyamide and coated paper.

12(Currently amended). A process for the production of at least one through plating of an electronic component comprising:

forming a plurality of layers of different material including a first lower layer, a majority of which layers are of predominantly organic material and which plurality of layers organic material includes an insulating layer, the forming of the first lower layer being followed by forming subsequent layers deposited sequentially one on the other contiguously onto and with the first lower layer, the forming of the first lower layer including forming a disruption element on the first lower layer, which element is arranged to result in a void in at least two layers of a first portion of the subsequently deposited layers on the first lower layer, and then forming a through plating in the resulting void through the at least two layers wherein at least two layers of a second portion of layers of the subsequently deposited layers are ohmically intercoupled to each other by the through plating.

13(Currently amended). An electronic component comprising:

a first layer;

a disruption element on a portion of the first layer over a given region of the first layer;

a plurality of layers of different materials applied to successively to the first layer,

at least one of which plurality of layers is contiguous with the first layer and a further layer of the plurality of layers is contiguous with the one layer, at least a first portion of the plurality of layers comprising predominantly organic material;

the disruption element being arranged to result in a void in at least two layers of a second portion of the plurality of layers in the area above the disruption element in response to when the at least two layers of the second portion of the plurality of layers being are applied to both the first layer and including the disruption element; and

a through plating in the resulting void for forming an electrical interconnection to at least two of the plurality of layers .

14 (Previously presented). The component of claim 13 wherein the through plating has a truncated conical cross section profile.

15 (Previously presented). The component of claim 13 wherein the through plating has a truncated conical cross section profile and is solid.

Claim 16, canceled.

17 (Currently amended). An electronic component comprising:

a first plurality of layers including a second plurality of predominately organic functional layers, at least one of the first plurality of layers comprising is a first lower layer and at least two ~~one~~ others of the first plurality of layers is ~~a~~ forming at least two central layers; and

at least one through plating having a truncated conical cross-sectional profile which extends from a wider cross-sectional profile region at, and contiguous with and overlying the first lower layer through at least the two central layers transversely to the two central layers to a narrower upper cross-sectional region spaced from the first lower layer, the at least one through plating ~~having a truncated conical cross sectional~~ profile extending at least in part below the two central layers and is electrically coupled to at least two layers of said first plurality of layers ~~and second plurality of predominantly organic functional layers.~~

18 (Previously presented). The component of claim 17 wherein the through plating is electrically conductive and is ohmically coupled to at least two of the second plurality of layers.

19 (Currently amended). The component of claim 17 wherein a third plurality of layers are on the first lower layer and form upper layers, the through plating extending from the first lower layer through at least one upper layer.

20 (Currently amended). An electronic component comprising:

a first plurality of layers of different materials, each layer of the first plurality of layers being contiguous with at least one other of the first plurality of layers, the first plurality of layers including a second plurality of predominately organic functional layers, at least one of the first plurality of layers is a first lower layer and at least two one others of the first plurality of layers are ~~is a~~ central layers; and

at least one through plating having a truncated conical cross-sectional profile which extends from and overlies the first lower layer through at least the at least two central layers transversely to the central layers, the at least one through plating having a truncated conical cross section profile extending at least in part below the at least two central layer and is electrically coupled to at least two layers of said first and second plurality of layers.

21 (Previously presented). The component of claim 17 wherein the first and second plurality of layers form further lower layers and upper layers, the through plating decreasing in diameter as the through plating extends from a lower layer to an upper layer.

22 (Previously presented). The component of claim 17 wherein the through plating extends through each of a further plurality of layers different than the first lower layer and is coupled to each of the of the further plurality of layers though which the through plating extends.

23 (Previously presented). The component of claim 17 wherein the through plating extends through each of a third plurality of layers different than the first lower layer and is coupled to the third plurality of layers though which the through plating extends, the through plating being electrically conductive and at least two layers of said first and second plurality of layers to which the through plating is coupled are electrically conductive and in ohmic contact with the through plating.

24 (Previously presented). The component of claim 17 wherein the through plating is solid.

Add the following claims:

25. (New) The component of any one of claims 17 and 20 further including a disruption element on the first lower layer arranged to result in a void in the at least two central layers in response to the at least two central layers being applied to the first lower layer and disruption element, the through plating being disposed in the void.

26. (New) The component of any one of claims 17 and 20 further including a disruption element on and contiguous with the first lower layer comprising the through plating, which through plating causes a void in the at least two central layers being applied subsequently to the through plating and to the lower first layer and which at least two central layers are contiguous with the through plating at their voids.

27 (New). A method of forming an electronic component comprising:

forming a lower layer;

forming a free-standing truncated conical cross-sectional profile through plating overlying and contiguous with the lower layer, the through plating extending and tapering from a lower cross sectional area at the lower layer to an uppermost cross sectional area smaller than the lower cross sectional area;

forming a plurality of further layers overlying and contiguous with the lower layer surrounded by and contacting the through plating extending therethrough, at least one of which further layers forms a central layer, at least two of which

plurality of further layers are organic functional layers and at least one of which further layers forms a first upper layer; and

forming a second upper layer overlying and contiguous with the first upper layer and with the through plating; wherein at least two of the layers are ohmically coupled to the through plating.